

Paper No. 21

FACTORS AFFECTING THE DELIVERY
OF CIGARETTE SMOKE VAPOUR PHASE.

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ABSTRACT

The deliveries of carbon monoxide, methane, hydrogen, hydrogen cyanide, aldehydes, and "total organic vapour phase" (defined in terms of a Cambridge filter and a flame-ionization detector) have been measured for cigarettes of various lengths. The contribution, and relative importance, of filtration, repyrolysis, ventilation and diffusion to the variations in delivery with cigarette length of these components have been assessed.

REVIEW BY R. M. WILEY

Diffusion loss is a dominating factor in controlling vapour phase delivery from a normal plain cigarette. Delivery of a component at the mouthpiece of a cigarette shows an exponential dependence on the length of cigarette remaining. The exponent is inversely proportional to the smoking rate. Thus, changes in chemical composition of smoke at the mouthpiece of a cigarette produced by different smoking regimes can arise in part through the physical process of diffusion loss.

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